

**The line of tube guitar preamplifiers of the AMT Bricks series  
X-Lead/X-Clean**



User's Manual

AMT Electronics presents the new X-Lead/X-Clean line of tube guitar preamplifiers. This line is a part of the AMT Bricks series of devices. The AMT Bricks series includes various devices (preamps, effect pedals, noise suppressors, cabinet simulators, controllers, pedalboards, etc.). Uniting the AMT Bricks series factor is their design and functional compatibility. Most of the devices of the series can be used both independently and together.

The AMT Bricks series and the X-Lead / X-Clean tube preamps' line are expanding constantly. Small dimensions, versatility, and "adult" sound – under this motto the new line of pedals was created. The pedals are built depending on the number of amplification stages either entirely on vacuum triodes or on the hybrid Tube + Semiconductors technology.

This manual is preliminary and applies to the first five X-Lead tube preamps.



Fig.1 X-Lead tube preamps

Figure 1 shows the preamps R/S, M, Vt, D and B

- **R/S-LEAD** (Red): R - Red-channel overdrive is used in one of the most popular hi-gain amps by Mesa Boogie / S - Soldano drive channel
- **M-LEAD** (Green) - It emulates the "forefather" of the majority of amplifiers created for heavy styles, legendary Marshall JCM800
- **Vt-LEAD** (Lilac) - The concept of VHT amps Lead channels
- **D-LEAD** (Black) - For high gain lovers, a-la Diezel
- **B-LEAD** (Yellow) - conveys the dynamic and aggressive nature of Bogner Uberschall amplifiers. It especially suits for detuned and low drop guitars

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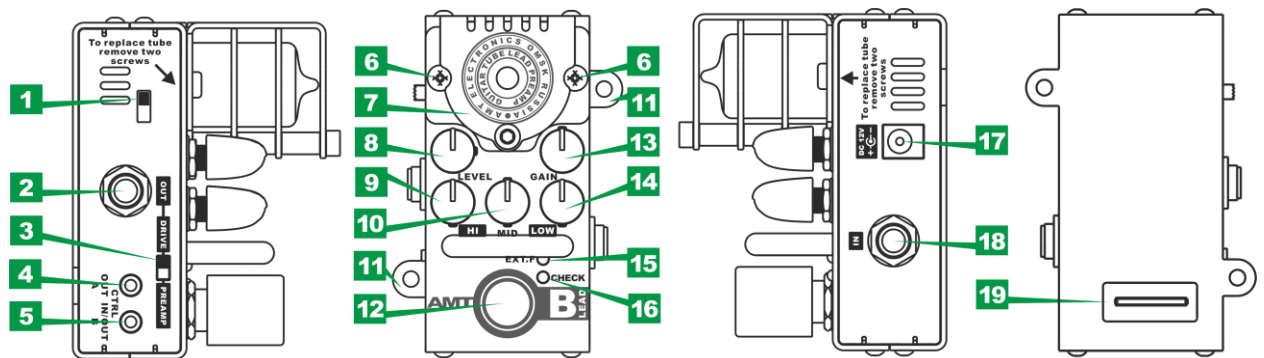
#### The features of the X-Lead/X-Clean preamps' line:

1. Small dimensions
2. The full set of regulation knobs (Gain, Treble, Middle, Bass, Volume), despite the compact design
3. The really high anode voltage (+250...300V)
4. The implementation of either full tube or hybrid (tube + semiconductors) circuit design with efficient emulation of vacuum triode cascades by semiconductor components.
5. Ability to use overloaded channels in preamp mode (connected to the Amp's Return) or in the drive pedal mode (connected to the amp's Input)
6. The pedal can control other devices or be controlled by other devices. It has special CTRL A and CTRL B connectors

7. X-Lead/X-Clean preamps can be used as separate devices, as well as a group of preamps connected in a serial chain (both via the audio path and the control connectors CTRL A and CTRL B). In the latter case, turning on any preamp in the chain will turn off all other connected preamps, that is, they'll be switched to TRUE BYPASS mode. Thus, without the use of any external devices, it is possible to implement a multichannel preamp from almost any reasonable number of preamps of the X-Lead/X-Clean line, switched by the "one of" rule.

In addition, X-Lead / X-Clean preamps, along with other devices, can be used as part of an AMT Bricks pedalboard. Full information about the pedalboard will be presented later.

**Appearance, Connectors and Controls**



**Fig.2**

1. S/R - the switch of preamp type. R - Mesa Boogie Red Channel/ S - Soldano (the switch is present only on the R/S LEAD model)
2. OUT - the output connector (TS) for direct connection to guitar system power amp, that can be presented as a separate unit or accessed via return input of a guitar combo/head FX loop. The type of output is determined by the #3 DRIVE/PREAMP switch.
3. DRIVE/PREAMP - the switch of OUT (#2) mode
4. CTRL A - TRS 3.5mm external control connector (output)
5. CTRL B - TRS 3.5mm external control connector (input/output)
6. Tube protective guard's fixing screws (M3X5 - 2 pcs.)
7. Tube protective guard
8. LEVEL - output level regulator
9. HI - high frequencies regulator
10. MID - middle frequencies regulator
11. "Petals" with holes for mounting the preamp on your pedalboard
12. Foot switch turning on and off the effect
13. GAIN - preamp's sensitivity regulator
14. LOW - lower frequencies regulator
15. EXT.F - External Function green LED (used when the device is on the AMT Bricks pedalboard)
16. Check - LED indicator turns red when the effect is activated.
17. DC12V power connector (Center pin - Minus)
18. IN - preamp's input (TS)
19. Connector for the AMT Bricks pedal board

An example implementation of the 5 channel preamp on based on the X-Lead/X-Clean preamps

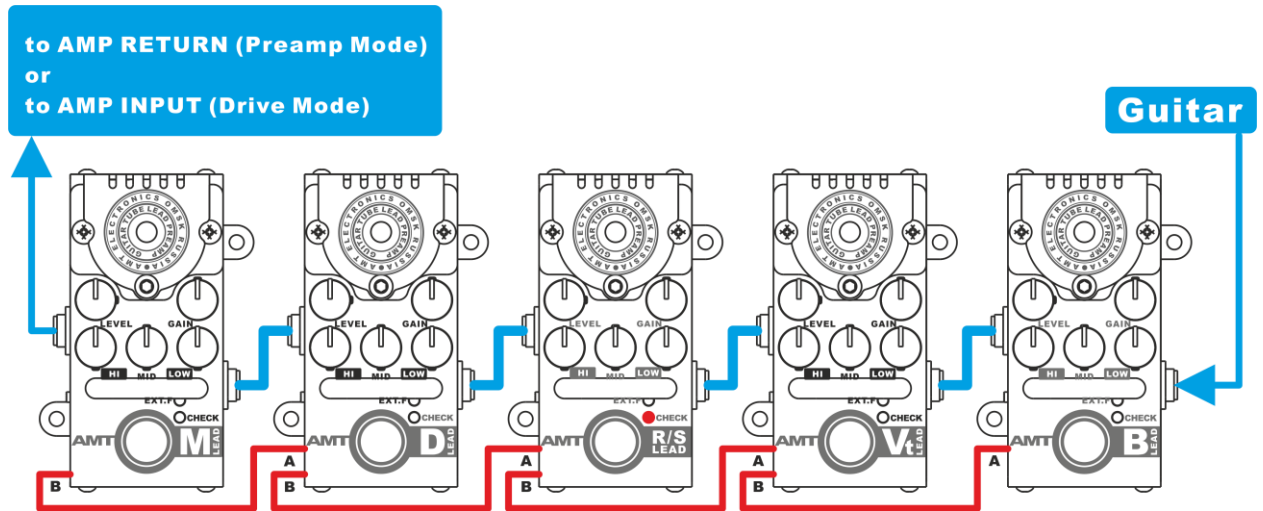


Fig.3

For serial connection of several preamps, use patch cables with TS 6.35 mm Jack-Jack connectors (Fig.4) (connect the output #2 of the previous preamp to the input #18 of the next)



Fig.4



Fig.5

Management of several preamps is accomplished by briefly pressing the footswitch of the selectable preamp, while the previously enabled preamp will be automatically disabled. To do this, connect the socket # 4 "CTRL A" of the one preamp and the socket # 5 "CTRL B" of the other with a TRS 3.5mm cable Fig.5.

For the convenience of working with AMT Bricks preamps, we offer as an additional option a Cap for a footswitch. Fig.6



Fig.6

**IN - input**

Impedance 1 MOhm

Nominal sensitivity -20 dBm

**OUT - output (Preamp)**

Output impedance 10 kOhm

Maximum output signal level +6 dBm

**OUT - output (Drive)**

Output impedance 10 kOhm

Maximum output signal level +3 dBm

**Power**

Voltage DC 12V

Current consumption Approx. 300 mA

Dimension (HxWxD) 47mm x 55mm x 95mm

Weight 270 g (without package)

**Polarity of the power adapter.**

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**The complete set includes:**

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- AMT X-Lead/X-Clean preamp 1 pc.
- Packaging 1 pc.
- Warranty card 1 pc.

**At the discretion of the manufacturer**, a preamplifier can be equipped with a tube of one of the following types: **AMT-12AX7WS**, 12AX7, ECC83 (or another 12AX7 compatible).

**!!! ATTENTION !!!** A power supply isn't included in the set.

**Safety instructions:**

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*WARNING! Inside the device there are no parts that are user-serviceable.  
Repairs to the device may only be performed by qualified personnel.  
WARNING! Do not expose the preamp to rain, moisture, dripping or splashing  
water. Do not place near objects filled with liquids, such as vases, etc.*

**Connecting the preamp to the power adapter:**

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The connection is made only after all the audio connections!

Before connecting the preamp to the power adapter, make sure that the case, connection cable, and plug the AC adapter are not damaged: no cuts, cracks, dents, etc. and are in good condition.

To connect the preamp to the AC adapter, insert the low-voltage connector adapter into the jack on the right panel of the preamp, and then plug the adapter into the wall outlet.

**Disconnecting the preamp:**

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To disconnect the preamp, disconnect the AC adapter from the power outlet, and then disconnect the low-voltage connector from the socket on the right-hand panel of the preamp.

To prevent damage during storage and transport use the original packaging.

Do not let children play with the packaging.

Please dispose of all packaging materials in an environmentally friendly way.

To avoid overheating of the device is provided with sufficient ventilation, do not cover it, and do not place near heating radiators etc.

Operation near powerful radio transmitters and high-frequency sources can lead to a marked deterioration in sound quality. In this case, increase the distance between the sensor and the transmitter and use shielded cables for all connections.

### Warning!

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*Please note that high volume can damage your hearing and/or damage to the dynamic head of your speaker system. Before switching on the unit, turn knobs «Volume» to the left (counter clockwise). Always try to keep the volume at a moderate level.*

### Replacement of the tube.

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During long-term operation, vacuum tubes tend to degrade their parameters up to a complete loss of efficiency. In this regard, you may need to replace the tube. In addition, vacuum tubes from different manufacturers (and often from the same one) have different parameters (gain, noise, etc.) and, as a result, the character of the sound, so you may want to replace the tube.

In order to get access to the tube (Fig.7), it is necessary to remove the protective guard (#7), for which it is necessary to unscrew the 2 screws (#6) (Fig.2).



**Fig.7**

When removing the tube from the socket, swing it slightly from side to side.

### Useful links

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AMT Electronics official site:

<https://amtelectronics.com>

**Media center**, here You will find  
many useful information (video, manuals, articles etc)  
about all our products:

<http://media.amtelectronics.com/>



**official Russian forum:**  
<http://forum.amtelectronics.com>

**official English forum:**  
<http://forums.amtelectronics.com>